

great Archean Nucleus. Of their former north-eastern extension we have at present no evidence, but as a similar Palaeozoic group occurs around the shores of Hudson's Bay, it seems not improbable that the present geographical separation of the Winnipeg, Lake Superior and Hudson's Bay Palaeozoic areas is the result of denudation in Post-Palaeozoic ages. The very considerable outliers already known in the as yet little explored region, lying north of the St. Lawrence and Ottawa River and south of Hudson's Bay, lend support to this supposition, and to the view that the larger part of the great Archean Nucleus was more than once entirely submerged during Palaeozoic time.

3. THE ARCHEAN NUCLEUS.

The enormous area, probably, as already stated, over 2,000,000 square miles, underlaid by the ancient crystalline rocks which constitute the continental nucleus, extends through about eighty-two degrees of longitude from Demarecration Point, on the Arctic Ocean, west of the mouth of the Mackenzie River, to the Straits of Belle Isle, on the Atlantic.

It will be readily understood that the area over which the rocks constituting this great Archean crystalline series, known as the Laurentian and Huronian Systems, have been examined in detail must be comparatively small, and that we have yet much to learn respecting them.

In Chapter II. Geology of Canada, 1863, they are very fully described by Sir W. E. Logan. Recent investigation has added nothing of importance to what is there given respecting these rocks. But it has greatly enlarged the area over which they were then known to extend, though it has not yet afforded any more satisfactory evidence of the relations of the Huronian rocks to the Laurentian. In all cases the supposed junction of the strata of the two systems either shews them vertically side by side or the Huronian strata apparently dipping under the Laurentian, while both present a very constant northeasterly strike. Notwithstanding these facts, their exceedingly different mineralogical characters and general appearance, broadly viewed, render it almost impossible to suppose that the superposition, as indicated by these dips, is the true one, or that the Huronian is not newer than the Laurentian. If so, then we must admit that both systems are presented in a constant succession of enormously thick overturned folds, with perhaps many dislocations and slips on the lines of the anticlinal axes. And as such a character would correspond with that of the Eastern Palaeozoic Basin, already described, it is probably the